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REMOVAL SUPPORT TEAM 3  
EPA CONTRACT EP-S2-14-01

August 21, 2018

Mr. Terry Kish, On-Scene Coordinator  
U.S. Environmental Protection Agency, Region II  
Removal Action Branch  
2890 Woodbridge Avenue  
Edison, New Jersey 08837

**EPA CONTRACT NO: EP-S2-14-01**  
**TDD No: TO-0370-0027**  
**DC No: RST3-05-D-0015**  
**SUBJECT: BURNS ROLL-OFF CONTAINER AND CYLINDER INVENTORY**  
**REPORT**  
**SHAMROCK ENTERPRISES SITE**  
**FRANKLINVILLE, GLOUCESTER COUNTY, NEW JERSEY**

Dear Mr. Kish,

Enclosed please find the Burns Roll-off Container and Cylinder Inventory Report, which details the actions taken to receive, document, and inventory the contents of the roll-off container delivered by Richard S. Burns & Company, Inc. at the Shamrock Enterprises Site located in Franklinville, Gloucester County, New Jersey on Friday June 15, 2018. If you have any questions or comments, please contact me at (908) 565-2974.

Sincerely,

WESTON SOLUTIONS, INC.

Michael Lang  
RST 3 Site Project Manager

Enclosure  
cc: TDD File: TO-0370-0027

*an employee-owned company*



In association with Scientific and Environmental Associates, Inc.,  
Environmental Compliance Consultants, Inc., Avatar Environmental, LLC,  
On-Site Environmental, Inc., and Sovereign Consulting, Inc.

# **BURNS ROLL-OFF CONTAINER AND CYLINDER INVENTORY REPORT**

## **SHAMROCK ENTERPRISES SITE Franklinville, Gloucester County, New Jersey**

SSID No: A21Z  
EPA ID: NJN986654960

DC No: RST3-05-D-0015  
TDD No: TO-0370-0027  
EPA Contract No: EP-S2-14-01

Prepared for:

U.S. Environmental Protection Agency, Region II  
2890 Woodbridge Avenue  
Edison, New Jersey 08837

Prepared by:

Removal Support Team 3  
Weston Solutions, Inc.  
Federal East Division  
Edison, New Jersey 08837

August 2018

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## **1.0 Introduction**

This Burns Roll-off Container and Cylinder Inventory Report describes the events that occurred during the delivery of a roll-off container that arrived from Richard S. Burns & Company, Inc. (Burns) at the Shamrock Enterprises Site (the Site) on June 15, 2018, and the actions taken by the U.S. Environmental Protection Agency (EPA) Region 2, Removal Action Branch (RAB) upon receipt of the roll-off container. This report summarizes the activities undertaken to address the contents of the roll-off container, including staging propane tanks for future flaring, inventorying all non-propane cylinders, venting cylinder contents, and decommissioning cylinders.

### **1.1 Site Location and Description**

The Site is the location of Shamrock Enterprises (Shamrock), which is a compressed gas supply company that stores and sells gasses, including oxygen, acetylene, pure argon, argon mixtures, nitrogen, carbon dioxide (liquid and gaseous) and helium. The business is located at 281 Clearfield Avenue in Franklinville, New Jersey, on a residential property, which includes Block: 1802 and Lots: 30, 31, 32 and 33. The property (all four lots combined) is approximately 52 acres in size. Business operations are conducted on Lot 31; this parcel contains two buildings which include a maintenance shed and a small scale-house. Lot 33 contains a house and several shed-like structures (pole barn, old chicken coop, etc.). Lots 30 and 32 contain no permanent structures (wooded area, field, etc.).

Refer to Attachment A, Figure 1: Site Location Map.

### **1.2 Site History and Background**

Prior to 2002, Shamrock was owned and operated by Scully Brothers Inc. After 2001, the business name was changed to Shamrock Enterprises. In April 2017, Shamrock obtained ownership of the property (Block: 1802 and Lots: 30, 31, 32 and 33). Prior to 2001, Scully Brothers Inc. operated a compressed gas retail operation and a small-scale junk yard at this location. After 2001, Shamrock began accepting full and partially-full propane cylinders from various sources, including municipalities, counties, businesses, individuals and other scrap yards. Currently, recovered propane from full and partially-full cylinders is being used as fuel to heat the house on the property and for a torch used to cut empty cylinders. Incoming shipments of cylinders were received from the following entities within the last year: Borough of Clementon, Pennsville Township, Kendzierski Brothers (Camden, New Jersey), Camden Iron and Metal/ EMR, Burns (Philadelphia, Pennsylvania), Salem County and West Deptford Township, New Jersey.

In August 2017, personnel from the New Jersey Environmental Protection Agency (NJDEP) Bureau of Hazardous Waste Compliance and Enforcement (C&E), NJDEP Bureau of Air C&E, NJDEP Bureau of Water C&E, and Gloucester County Health Department conducted an incident investigation in company of the owner of Shamrock. The investigation was prompted by a call to the NJDEP Communication Center Hotline on July 27, 2017. The caller reported that Shamrock was recycling propane tanks on-site. The company was cutting off the tank valves and releasing the propane into the atmosphere prior to cutting them in half and disposing of them as scrap metal.

It was also reported that a large volume of plastic is being stored on-site, and there could possibly be soil contamination where the tanks are being stored.

The NJDEP investigation revealed that large shipments of propane cylinders (full, partially full and empty) are delivered via dump truck or roll-off container. The cylinders are then segregated (empty vs. full/partially-full). The liquid propane from the partially-full propane cylinders is transferred from one cylinder to another by means of a mechanical hand pump or via gravitation by connecting two cylinders with a hose. Both of these methods of transfer leave a positive vapor pressure within the cylinders; therefore, the cylinders do not meet the Resource Conservation and Recovery Act (RCRA) definition of an empty gas cylinder per 40 CFR 261.7(b)(2). The valve is then removed from the liquid free cylinders and the remaining gaseous propane is vented to the atmosphere. After the valves are removed, the cylinders are cut in half and sent out as scrap metal. Bills-of-lading indicate that the scrap metal is sent to Camden Iron & Metal or occasionally to another competitor offering a higher price.

Shamrock also accepts cylinders that can no longer be certified for re-use; occasionally, these cylinders may be full, or partially-full. These cylinders may contain flammable gases such as: acetylene, propylene, liquid oxygen, methane and propane or inert gasses such as: carbon dioxide (liquid and gaseous), helium, argon, nitrogen and compressed air. Propane is recovered in the methods described above and the other flammable gasses are used in a multi-gas cutting torch. Inert gasses are used to operate compressed air tools. When the cylinders are considered empty (no free liquid but may contain a positive vapor pressure), the valves are removed and the cylinders are cut in half and are sent out as scrap metal.

Shamrock is storing an excessive volume (rough estimate of 3,000) of full and partially-full gas cylinders on-site; many of which can no longer be used for their intended purpose. Based upon the condition of the cylinders (contain unknown materials, unlabeled, exceeded their certification date, damaged, etc.) and the fact that the cylinders are being accumulated speculatively as defined in 40 CFR 261.1(c)(8); the contents of many of the cylinders are hazardous waste as defined in 40 CFR 261.2.

In addition to the cylinders stored on-site, large volumes of solid waste, scrap metal and consumer electronics can be seen at the Site. The solid waste consists of, but is not limited to: buses, mobile homes, tractor trailers and several large piles of plastic telephone wire coating. The scrap metal consists of steel (including empty cylinders) and aluminum. Consumer electronics consist of Cathode Ray Tubes (CRTs) and circuit boards. Many of the CRTs were broken and were found in a wetland area located on the property.

Housekeeping and general safety concerns were also noted on-site; many of the cylinders are being stored in an improper manner such as in large waste piles on the ground or on their side rather than in the upright position. Many of the cylinders are in poor condition (rusted, dented, broken valves, etc.) and are exposed to the weather elements. Incoming shipments of propane cylinders are delivered in open top roll-off containers and are dumped directly onto the ground into a pile. This activity could potentially shear the valves or puncture the cylinders creating a hazardous

atmosphere that could lead to a fire or explosion. Overgrown vegetation, the lack of a fire suppression system, logistical problems regarding ingress and egress of the property and high-tension power lines running through the property were also noted. These issues would prohibit safe access by first responders in the event of an emergency. Although Shamrock had several certified fire extinguishers on-site, they lacked a comprehensive fire suppression system that would extinguish or contain a large fire.

A Notice of Violation (NOV) was issued to Shamrock Enterprises by the Franklin Township Fire Department on October 31, 2016. Due to Shamrock's failure to comply with the NOV, an "Order to Pay Penalty and Abate Violations" was issued to Shamrock on July 27, 2017. Based upon observation made during the course of the NJDEP investigation, another NOV with several citations, including "Out of Compliance, Non-referred", was issued to Shamrock Enterprises on August 24, 2017.

On February 7, 2018, the EPA and Weston Solutions, Inc., Removal Support Team 3 (RST 3) conducted a site walk. The observed conditions at the Site, which corroborated the findings of the NJDEP investigation, were noted, and RST 3 provided additional photographic documentation.

On March 9 and 27, 2018, EPA and RST 3 conducted site walks to document the locations of cylinders and other materials stored at the Site. Documentation activities were accomplished with digital photographs and notation in the Site logbook. Air monitoring was performed during the site walks to verify that future site activities could be conducted in Level D personal protective equipment (PPE).

On June 11, 2018, EPA initiated a Removal Action at the Site, with the support of its Emergency and Rapid Response Services (ERRS) contractor and RST 3. Activities conducted during the Removal Action include documenting and inventorying non-propane cylinders, decommissioning empty cylinders, segregating cylinders with contents based on hazard class, treating cylinders with contents, staging of propane cylinders for flaring, and loading decommissioned acetylene cylinders in a roll-off for disposal.

## **2.0 Event Description**

On Friday, June 15, 2018, a truck carrying a roll-off container from Burns driven by Bob Doneker arrived at the Site at approximately 0710 hours. The roll-off container was backed up to the loading dock for on-site personnel to determine the contents. Observations by on-site personnel indicated that the roll-off container had numerous propane tanks and assorted non-propane cylinders. The delivery of the roll-off container was marred with issues, including the fact that the driver did not have a hazardous materials endorsement on his driver's license, there were no shipping papers accompanying the delivery to indicate what was in the roll-off, and the truck had no placards. Based on the issues identified with the delivery, the EPA On-Scene Coordinator (OSC) informed the driver that he was likely transporting a shipment of hazardous materials illegally. For safety reasons and avoidance of a potential violation of Department of Transportation (DOT) regulations, the OSC advised the driver to drop the roll-off container on site instead of transporting it illegally back to the originating facility. The driver complied with the advice, dropped the roll-off container,

and departed the Site at approximately 0740 hours.

On Monday, June 18, 2018, EPA's ERRS contractor, EPA's ERRS contractor's compressed gas cylinder subcontractor, Integrated Environmental Services, Inc. (IES), and RST 3 unloaded the roll-off container. The contents of the roll-off container included a total of 345 propane tanks and 52 non-propane cylinders. Upon unloading the roll-off container, it was determined that most of the propane tanks and cylinders still had their valves attached. In addition, many of the cylinders were not in DOT shippable condition. Some cylinders still contained product and some had labels indicating the contents. All propane tanks and non-propane cylinders from the roll-off container were incorporated into the on-going Removal Action at the Site. The propane tanks received as part of this delivery were staged for future flaring, and the assorted cylinders were documented and inventoried by RST 3 and IES.



Refer to Attachment B, Table 1: Burns Roll-off Cylinder Inventory and Attachment C: Photographic Documentation Log.

### **3.0 Discussion**

Of the 52 non-propane cylinders that arrived at the Site, it was determine through the cylinder inventory that three cylinders contained a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances. One cylinder contained oxygen (oxidizer) and two cylinders contained acetylene (flammable). In addition, the oxygen was not compatible with either the acetylene cylinders or propane tanks that were transported and delivered together in the roll-off container. Several other cylinders had no labeling or clear indication of the contents, making it difficult for the originating facility to know what they were sending for disposal.

Of the 52 non-propane cylinders, two cylinders determined to contain acetylene were vented and decommissioned, 23 cylinders determined to be empty were decommissioned, five cylinders determined to contain Freon were staged for future removal by a Freon vendor, 10 cylinders determined to contain carbon dioxide were vented and decommissioned, seven cylinders determined to contain helium were vented and decommissioned, four cylinders determined to contain nitrogen were vented decommissioned, and one cylinder determined to contain oxygen was vented and decommissioned.

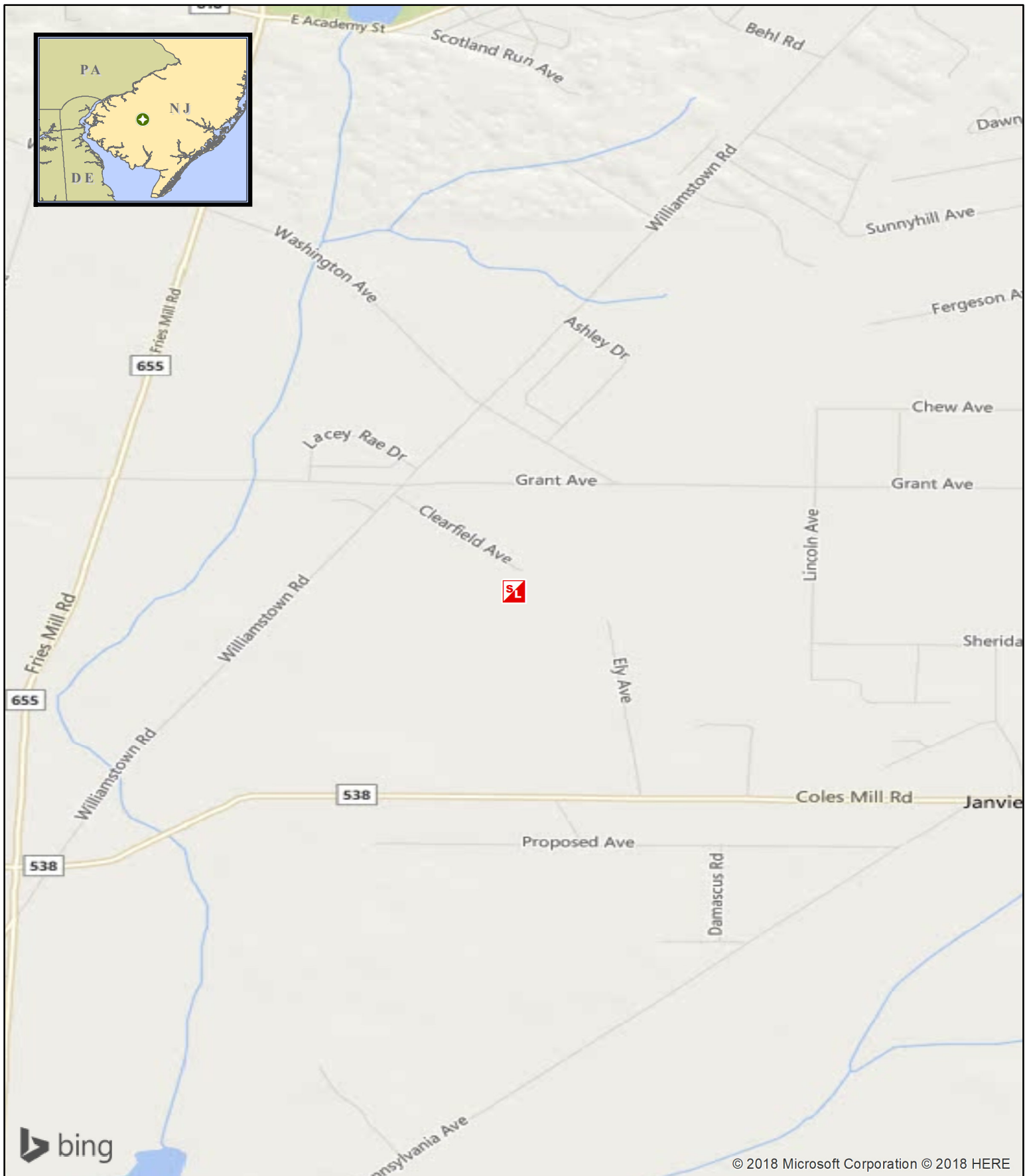
Refer to Attachment B, Table 1: Roll-off Cylinder Inventory Summary Table.

<b>Report prepared by:</b>		<u>8/21/2018</u>
	Michael Lang	Date
	RST 3 Site Project Manager	
<b>Report reviewed by:</b>		<u>8/21/2018</u>
	Bernard Nwosu	Date
	RST 3 Group Leader	

# **ATTACHMENT A**

Figure 1: Site Location Map

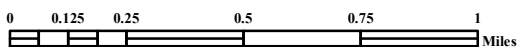




## Legend



Site Location



**Weston Solutions, Inc.**  
**East Division**

In Association With  
Scientific and Environmental Associates, Inc.,  
Environmental Compliance Consultants, Inc.,  
Avatar Environmental, LLC, On-Site Environmental,  
Inc. and Sovereign Consulting, Inc

## Figure 1: Site Location Map

Shamrock Enterprises Site  
Franklinville, New Jersey

U.S. ENVIRONMENTAL PROTECTION AGENCY  
REMOVAL SUPPORT TEAM 3  
CONTRACT # EP-S2-14-01

GIS ANALYST:	M. MANNINO
EPA OSC:	T. KISH
RST SPM:	M. LANG
CHARGE #:	03700027

DATE MODIFIED: 8/16/2018

## **ATTACHMENT B**

Table 1: Roll-off Cylinder Inventory Summary Table

**Table 1: Burns Roll-off Cylinder Inventory Summary Table**  
**Shamrock Enterprises Site**  
**Franklinville, Gloucester County, New Jersey**  
**June and July, 2018**

Inventory Number	Labeled Content	Suspected Content	Confirmed Content	CGA Number	DOT Number	Pressure Rating (psi)	Liquid?	Valve Cap?	Comments	Date Assessed	Date Processed
0104	Genetron12	Freon	NA	NA	NA	NA	No	No	From Burns roll-off	6/18/2018	NA
0105	NA	Freon	NA	NA	NA	NA	Yes	No	From Burns roll-off, crushed, deteriorated	6/18/2018	NA
0106	Carbon dioxide	Empty	Empty	330	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/18/2018	6/18/2018
0107	Carbon Dioxide	Empty	Empty	330	DOT-3AL1800	1,800	No	No	From Burns roll-off, valve open	6/18/2018	6/18/2018
0108	Carbon Dioxide	Empty	Empty	330	DOT-3AL1800	1,800	No	No	From Burns roll-off, valve open	6/18/2018	6/18/2018
0109	Oxygen	Empty	Empty	540	DOT-3A2215	2,215	No	No	From Burns roll-off, valve open	6/18/2018	6/18/2018
0110	Freon	Empty	Empty	660	NA	1,800	No	No	From Burns roll-off	6/18/2018	6/18/2018
0111	Carbon Dioxide	Empty	Empty	320	DOT-3AL1800	1,800	Yes	No	From Burns roll-off, valve open	6/18/2018	6/18/2018
0112	Nitrous Oxide	Empty	Empty	326	DOT-3AA1800	1,800	No	No	From Burns roll-off	6/18/2018	6/18/2018
0113	Oxygen	Empty	Empty	540	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/18/2018	6/18/2018
0114	NA	Carbon Dioxide	Carbon Dioxide	320	NA	1,800	No	No	From Burns roll-off	6/18/2018	6/27/2018
0115	Carbon Dioxide	Empty	Empty	320	NA	1,800	No	No	From Burns roll-off	6/18/2018	6/18/2018
0116	NA	Oxygen or Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL3000-S80	3,000	No	No	From Burns roll-off	6/18/2018	6/28/2018
0117	Oxygen	Empty	Empty	540	NA	NA	No	Yes	From Burns roll-off	6/18/2018	6/18/2018
0118	NA	Nitrogen or inert gas	Nitrogen	580	NA	2,260	No	No	From Burns roll-off	6/18/2018	6/26/2018
0119	NA	Empty	Empty	NA	DOT-4BA260	260	No	No	From Burns roll-off	6/18/2018	6/18/2018
0120	NA	Empty	Empty	NA	DOT-4BA350	350	No	No	From Burns roll-off	6/18/2018	6/18/2018
0130	NA	Freon	NA	NA	DOT-4BW260	260	No	No	From Burns roll-off	6/18/2018	NA
0131	Mixed refrigerants	Freon	NA	NA	NA	NA	No	No	From Burns roll-off	6/18/2018	NA
0132	Refrigerant	Empty	Empty	NA	DOT-4BA400	400	No	No	From Burns roll-off	6/18/2018	6/18/2018
0133	NA	Freon	NA	NA	DOT-4BA350	350	Yes	No	From Burns roll-off	6/18/2018	NA
0134	Genetron 22; monochlorodifluoromethane (freon)	Empty	Empty	NA	NA	240	No	No	From Burns roll-off	6/18/2018	6/18/2018
0136	Acetylene	Acetylene	Acetylene	NA	NA	NA	No	No	From Burns roll-off	6/19/2018	7/25/2018
0137	NA	Oxygen	Oxygen	540	NA	2,265	No	No	From Burns roll-off, deteriorated label	6/19/2018	6/26/2018
0138	Compressed Air	Empty	Empty	NA	DOT-E8059 4500	4,500	No	No	From Burns roll-off	6/19/2018	6/19/2018
0139	Compressed Air	Empty	Empty	NA	DOT-3AL3000	3,000	No	No	From Burns roll-off	6/19/2018	6/19/2018
0140	Nitrous Oxide	Empty	Empty	NA	DOT-3AA2015	2,015	No	No	From Burns roll-off	6/19/2018	6/19/2018
0141	Acetylene	Acetylene	Acetylene	NA	NA	NA	No	No	From Burns roll-off, illegible markings	6/19/2018	7/25/2018
0142	Oxygen	Empty	Empty	540	NA	201	No	No	From Burns roll-off	6/19/2018	6/19/2018
0143	Oxygen	Empty	Empty	NA	DOT-E-6565	NA	No	No	From Burns roll-off	6/19/2018	6/19/2018
0144	Carbon Dioxide	Empty	Empty	NA	DOT-3AL	1,800	No	No	From Burns roll-off	6/19/2018	6/19/2018
0145	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	NA	NA	No	No	From Burns roll-off	6/19/2018	6/26/2018
0146	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0147	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0148	Helium	Empty	Empty	NA	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/19/2018
0149	Helium	Helium	Helium	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/26/2018
0150	Helium	Helium	Helium	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/26/2018
0151	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0152	Carbon Dioxide	Empty	Empty	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/19/2018
0153	Helium	Empty	Empty	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/19/2018
0154	Helium	Helium	Helium	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/26/2018
0155	Helium	Helium	Helium	930	DOT-3AL1900	1,900	No	No	From Burns roll-off	6/19/2018	6/26/2018
0156	Helium	Helium	Helium	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/26/2018
0157	Helium	Helium	Helium	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/26/2018
0158	Helium	Helium	Helium	930	DOT-3AL2216	2,216	No	No	From Burns roll-off	6/19/2018	6/26/2018
0159	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0160	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0161	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0162	Carbon Dioxide	Carbon Dioxide	Carbon Dioxide	NA	DOT-3AL1800	1,800	No	No	From Burns roll-off	6/19/2018	6/26/2018
0163	Ethanol, Nitrogen	Ethanol*, Nitrogen	Nitrogen	NA	DOT-3AL1200	1,200	No	No	From Burns roll-off	6/19/2018	6/26/2018
0164	Ethanol, Nitrogen	Ethanol*, Nitrogen	Nitrogen	NA	DOT-3AL1200	1,200	No	No	From Burns roll-off	6/19/2018	6/26/2018
0165	Ethanol, Nitrogen	Ethanol*, Nitrogen	Nitrogen	NA	DOT-3AL1200	1,200	No	No	From Burns roll-off	6/19/2018	6/26/2018

CGA - Compressed Gas Association

DOT - Department of Transportation

psi - pounds per square inch

NA - Not Applicable

Rows highlighted in yellow indicate a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance

Note: In addition to the 52 compressed gas cylinders inventoried above, the roll-off contained 345 propane tanks

# **ATTACHMENT C**

Photographic Documentation Log



**Photographic Documentation Log**  
Shamrock Enterprises Site  
Franklinville, Gloucester County, New Jersey  
June 15 through June 19, 2018



**Photograph 1:** View of propane tanks and assorted cylinders that arrived at the Shamrock Enterprises Site (the Site) on June 15, 2018 on a truck carrying a roll-off from Richard S. Burns & Company, Inc. (Burns). The truck contained a total of 345 propane tanks and 52 assorted compressed gas cylinders.



**Photograph 2:** View of cylinders that arrived in the Burns roll-off container located on the cylinder pad prior to being inventoried.



**Photographic Documentation Log**  
Shamrock Enterprises Site  
Franklinville, Gloucester County, New Jersey  
June 15 through June 19, 2018



**Photograph 3:** View of cylinders that arrived in the Burns roll-off container located on the cylinder pad prior to being inventoried.



**Photograph 4:** View of cylinder 0136 that arrived at the Site in the Burns roll-off. This cylinder was determined to contain acetylene.



**Photographic Documentation Log**  
Shamrock Enterprises Site  
Franklinville, Gloucester County, New Jersey  
June 15 through June 19, 2018



**Photograph 5:** View of cylinder 0141 that arrived at the Site in the Burns roll-off. This cylinder was determined to contain acetylene.



**Photograph 6:** View of cylinder 0137 that arrived at the Site in the Burns roll-off. This cylinder was determined to contain oxygen.